Dr. Suresh Moolgavkar

In re: W.R. Grace & Co., Debtor

May 26, 2009

BUELL REALTIME REPORTING, LLC
THE NORTHWEST'S LEADING COURT REPORTING AND LEGAL VIDEOGRAPHY FIRM

Phone: 206 287 9066
Fax: 206 287 9832
Email: info@buellrealtime.com
Internet: www.buellrealtime.com

MR. STANSBURY: I want to just make one statement for the record, just so we're clear. As you and I discussed and my e-mails reflected, those data were produced to you separately upon acknowledging the protective order. This data is governed by a very strict protective order issued through this court, and it was only upon your signing the protective order and sending the acknowledgment required by the face of the protective order that I was able to send that to you. I just want to make sure we're clear about that on the record.

MR. HEBERLING: Okay. And let the record also show that that was received May 20.

MR. STANSBURY: Again, I think we could go into specifics, but there were multiple times, Jon, in which I reminded you that we had not received your acknowledgment, which was the prerequisite for sending you that data.

MR. HEBERLING: Well, there's an e-mail history on that. That's not correct.

MR. STANSBURY: There is.

MR. HEBERLING: You reminded me once. And apparently the first time I sent it, it was lost in the mail. So...(Pause.)

Q (By Mr. Heberling) The last sentence in that

paragraph, you say, "We can see the estimate of Libby potency lies in the middle of the range for asbestos fibers, and is much smaller than the potency for crocidolite, and somewhat smaller than the potency for amosite. Do you see that?

A Yes.

Q And you've cited Berman and Crump.

And I believe Hodgson and Darnton also did these calculations?

A Well, the Hodgson and Darnton index is different from the potencies reported in Berman and Crump.

And let me explain the difference to you. Berman and Crump used the method, the statistical model that was used by EPA and by Nicholson in 1986. And that was based on some work done by Julian Peto somewhat earlier. So they used one form of a statistical model to look at mesothelioma incidents in a cohort exposed to asbestos.

Hodgson and Darnton used quite a different approach. So their approach is not directly comparable to the Berman and Crump approach.

However, you can use both approaches to estimate the potency of Libby fiber and see where in the spectrum of potencies the Libby fiber potency lies.

Q And can you give us a rough idea of the spectrum of potencies under Hodgson and Darnton?

A Well--

Q Like crocidolite was 500 times chrysotile and amosite was something else?

A No. Do you have Hodgson and Darnton?

Q Not here, no.

A I'd have to look at it. And you could do that too. You could go back and look at Table 1 in Hodgson and Darnton and look at the potencies for mesothelioma that's reported and come to your own conclusions regarding that.

Q And likewise there's a table in Berman and Crump that does the same thing?

A There's a table, I see here Table 4 of Berman and Crump. And you can look at that.

Q And do you agree with this Table 1 of Hodgson and Darnton?

A It's not a matter of agreement or disagreement. It's just a way of-- that Hodgson and Darnton used to estimate the potency for specific cohorts or specific fiber times.

And I've used exactly the same method in Libby just to compare apples with apples. So I compared the Hodgson and Darnton index for Libby with the Hodgson and

Carton indices for the other fibers.

And I compared the Berman and Crump index, for lack of a better name, with the Berman and Crump indices for the other fibers.

Q Okay. And so did you consider Hodgson and Darnton's index of relative potencies reliable?

A Well, it's reliable in that it gives you a way to order the potencies of the various fibers.

Q And have you relied upon that in entering your various opinions?

A Well, I've relied on that to say that Libby fiber is not any more toxic than other asbestos fibers.

In fact, if you compare the potencies with others reported in Hodgson and Darnton, Libby fiber lies somewhere right in the middle. It's considerably less potent than crocidolite.

Q And less potent also than amosite?

A Perhaps also a little less potent than amosite.

Q And more potent than chrysotile?

A And more potent than chrysotile.

Q By what factor was it more potent than chrysotile?

A I don't recall. I'd have to go back to Hodgson and Darnton to look at the table.

Q Is it fair to say that all the amphiboles were significantly more potent than the chrysotile?

A Well, it depends on which amphibole. This is a little less potent than amosite. And you know, you'd have to go to the table and take a look.

Q Maybe I didn't make my question clear. I was asking whether it was your observation that all the amphiboles were significantly more potent in the potency factor than-- for causing, let's say lung cancer first, than was chrysotile?

A For lung cancer, that's not clear at all, because there's the South Carolina chrysotile cohort, which is has pretty high rates of lung cancer.

So the relative potencies of amphibole vs. chrysotile for lung cancer, I think that is still fairly hotly debated. And I don't think that the difference in potencies is all that huge.

For mesothelioma, the amphiboles are considerably more potent than chrysotile.

Q And what about for fibrogenicity?

A I don't see any data on that.

Q And did you consider the Berman and Crump potency factor as reliable?

A Well, they apply a different method than Hodgson and Darnton do, as I said. And to the extent

that they reflect their analyses of the different cohorts, yes, they are reliable.

Q And you would rely, in discussing this matter, making a presentation to a group, say, you would rely on Hodgson and Darnton and you would also rely on Berman and Crump in discussing potency factors?

A Would I would say is that there are these two different approaches to look at exposure response relationships, one developed by Berman and Crump that goes back many, many years to Julian Peto; and then there's this other method developed in 2000 by Hodgson and Darnton. And here are the results by applying these two methods.

And then if I were asked which particular method do you prefer, I would have to say that I prefer the Berman and Crump approach.

Q But nevertheless, you consider the Hodgson and Darnton approach valid; it's just not as good as Berman and Crump?

A Well, it's just another approach. I think it's valid. I just prefer the Berman and Crump approach.

Q Then in the last paragraph on page 5, you're quoting from the Whitehouse 2008 paper, "31 cases of mesothelioma resulting from exposure to Libby asbestos